Amendments to the claims:

Please replace all prior versions and listings of the claims with the following amended claims:

1. (Original) A method of depositing a metal film on a substrate comprising the steps of:

a. maintaining supercritical carbon dioxide and a chelating agent in contact with the substrate to remove an oxide layer from a metal surface of the substrate, thereby forming a precleaned substrate; and

b. depositing the metal film on the precleaned substrate without exposing the precleaned substrate to a material which oxidizes the metal surface of the precleaned substrate.

2. (Original) The method of claim 1 wherein the step of maintaining the supercritical carbon dioxide and the chelating agent in contact with the substrate further comprises maintaining an acid in contact with the substrate such that the acid dissolves the oxide layer.

3. (Original) The method of claim 2 wherein the acid is selected from the group consisting of an organic acid and an inorganic acid.

4. (Original) The method of claim 2 wherein the oxide layer comprises a copper oxide.

5. (Original) The method of claim 4 wherein the acid comprises an organic acid.

6. (Original) The method of claim 4 wherein the acid is selected from the group consisting of acetic acid, formic acid, oxalic acid, malonic acid, alpha hydroxy acid, glycolic acid, citric acid, malic acid, lactic acid, amino acid, glycine, alanine, leucine, valine, glutamine, and lysine.

7. (Currently Amended) The method of claim 2 wherein the oxide layer comprises an aluminum oxide.

8. (Original) The method of claim 7 wherein the acid comprises an inorganic acid.

9. (Original) The method of claim 7 wherein the acid is selected from the group consisting of hydrofluoric acid, buffered hydrofluoric acid, ammonium fluoride, and ammonium bifluoride

10. (Original) The method of claim 1 further comprising the step of maintaining the supercritical carbon dioxide in contact with the substrate to desorb an adsorbate from the substrate prior to the step of depositing the metal film.

11. (Original) The method of claim 10 wherein the step of maintaining the supercritical carbon dioxide in contact with the substrate desorbs an absorbate from the substrate.

12. (Original) The method of claim 1 further comprising the step of maintaining the supercritical carbon dioxide and a solvent in contact with the substrate to remove a residue selected from the group consisting of a photoresist, a photoresist residue, and an etch residue from the substrate prior to the step of depositing the metal film.

13. (Original) The method of claim 1 wherein the chelating agent is selected from the group consisting of 2,4-pentanedione, 1,1,1,6,6,6-hexafluoro-2,4-pentanedione, 1,1,1-trifluoropentane-2,4-dione, 2,6-dimethylheptane-3,5-dione, 2,2,7-trimethyloctane-2,4-dione, 2,2,6,6-tetramethylheptane-3,5-dione, ethylenediamine diacetic acid, and nitrilotriacetic acid.

14. (Original) A method of depositing a metal film on a substrate comprising the steps of:

a. maintaining supercritical carbon dioxide and an amine in contact with the substrate to remove an oxide layer from a metal surface of the substrate, thereby forming a precleaned substrate; and

b. depositing the metal film on the precleaned substrate without exposing the precleaned substrate to a material which oxidizes the metal surface of the precleaned substrate.

15. (Original) The method of claim 14 wherein the amine is selected from the group consisting of triethanolamine, 2-methylaminoethanol, pyridine, 2,2'-bipyridine, and pentamethyldiethylenetriamine.

16. (Original) The method of claim 14 further comprising the step of maintaining the supercritical carbon dioxide in contact with the substrate to desorb an adsorbate from the substrate prior to the step of depositing the metal film.

17. (Original) The method of claim 16 wherein the step of maintaining the supercritical carbon dioxide in contact with the substrate desorbs an absorbate from the substrate.

18. (Original) The method of claim 14 further comprising the step of maintaining the supercritical carbon dioxide and a solvent in contact with the substrate to remove a residue selected from the group consisting of a photoresist, a photoresist residue, and an etch residue from the substrate prior to the step of depositing the metal film.

19. (Previously Presented) A method of depositing a film on a substrate comprising the steps of:

a. maintaining supercritical carbon dioxide from a first module in contact with the substrate to remove a sorbate selected from the group consisting of an absorbate and an adsorbate from the substrate, thereby forming a desorbed substrate; and

b. depositing the film on the desorbed substrate from a second module, wherein the substrate is transferred from the first module to the second module through a valve without exposure of the substrate to a surrounding environment.

20. (Original) The method of claim 19 where in the film comprises a metal film.

21. (Original) The method of claim 20 further comprising the step of maintaining the supercritical carbon dioxide and a chelating agent in contact with the substrate to remove an oxide layer from a metal surface of the substrate prior to the step of depositing the metal film on the substrate.

22. (Original) The method of claim 21 wherein the step of maintaining the supercritical carbon dioxide and the chelating agent in contact with the substrate further comprises maintaining an acid in contact with the substrate such that the acid dissolves the oxide layer.

23. (Original) The method of claim 20 further comprising the step of maintaining the supercritical carbon dioxide and an amine in contact with the substrate to remove an oxide layer from a metal surface of the substrate prior to the step of depositing the metal film on the substrate.

24. (Previously Presented) The method of claim 20 further comprising the step of maintaining the supercritical carbon dioxide and a solvent in contact with the substrate to remove a residue selected from the group consisting of a photoresist, a photoresist residue, and an etch residue from the substrate prior to the step of depositing the metal film.

25. (Original) A method of depositing a metal film on a substrate comprising the steps of:

a. maintaining supercritical carbon dioxide in contact with the substrate to remove a sorbate selected from the group consisting of an absorbate and an adsorbate from the substrate;

b. maintaining the supercritical carbon dioxide and a chelating agent in contact with the substrate to remove an oxide layer from a metal surface of the substrate; and

c. subsequently depositing the metal film on the substrate without exposing the substrate to a first material which forms a nonvolatile sorbate prior to depositing the metal film and without exposing the substrate to a second material which forms the oxide prior to depositing the metal film.

26. (Original) The method of claim 25 wherein the step of maintaining the supercritical carbon dioxide and the chelating agent in contact with the substrate further comprises maintaining an acid in contact with the substrate such that the acid dissolves the oxide layer.

27. (Original) The method of claim 25 further comprising the step of maintaining the supercritical carbon dioxide and a solvent in contact with the substrate to remove a residue selected from the group consisting of a photoresist, a photoresist residue, and an etch residue from the substrate prior to the step of depositing the metal film.

28. (Original) A method of depositing a metal film on a substrate comprising the steps of:

a. maintaining supercritical carbon dioxide in contact with the substrate to remove a sorbate selected from the group consisting of an absorbate and an adsorbate from the substrate;

b. maintaining the supercritical carbon dioxide and an amine in contact with the substrate to remove an oxide layer from a metal surface of the substrate; and

c. subsequently depositing the metal film on the substrate without exposing the substrate to a first material which forms a nonvolatile sorbate prior to depositing the metal film and without exposing the substrate to a second material which forms the oxide prior to depositing the metal film.

29. (Original) The method of claim 28 further comprising the step of maintaining the supercritical carbon dioxide and a solvent in contact with the substrate to remove a residue selected from the group consisting of a photoresist, a photoresist residue, and an etch residue from the substrate prior to the step of depositing the metal film.

30. (Currently Amended) A method of depositing a metal film on a substrate comprising the steps of:

a. maintaining supercritical carbon dioxide, a chelating agent, and an acid in contact with the substrate such that the acid dissolves an oxide layer from a metal surface

of the substrate and further such that the chelating agent carries away [[meal]] metal ions, thereby forming a precleaned substrate; and

b. depositing the metal film on the precleaned substrate without exposing the precleaned substrate to a material which oxidizes the metal surface of the precleaned substrate.

31. (Currently Amended) An apparatus for depositing a metal film on a substrate comprising:

a. a transfer module;

b. a supercritical processing module coupled to the transfer module;

c. a metal deposition module;

d. a vacuum module coupling the metal deposition module to the transfer module; [[and]]

e. means for transferring the substrate between the supercritical processing module and the metal deposition module; and

f. an inert gas injection arrangement coupled to the transfer module such that in operation the transfer module provides an inert gas environment.

32. (Original) The apparatus of claim 31 wherein the transfer module comprises an entrance and a first robot.

33. (Original) The apparatus of claim 32 wherein the entrance comprises a loadlock.

34. (Canceled).

35. (Original) The apparatus of claim 33 further comprising a vacuum pump coupled to the transfer module such that in operation the transfer module operates at vacuum.

36. (Original) The apparatus of claim 32 wherein the vacuum module comprises a second robot.

37. (Original) The apparatus of claim 36 further comprising a valve, the valve coupling the transfer module to the vacuum module.

38. (Original) The apparatus of claim 37 further comprising a vacuum pump coupled to the vacuum module.

39. (Original) The apparatus of claim 36 further comprising a loadlock, the loadlock coupling the transfer module to the vacuum module.

40. (Original) The apparatus of claim 31 wherein the supercritical processing module comprises a pressure vessel.

41. (Currently Amended) An apparatus for depositing a metal film on a substrate comprising:
a. a transfer module comprising an entrance and a first robot;
b. a supercritical processing module coupled to the transfer module;
c. a metal deposition module; and
d. a vacuum module coupling the metal deposition module to the transfer module, the vacuum module comprising a vacuum chamber and a second robot, wherein the first robot and the second robot are configured to transfer the substrate between the supercritical processing module and the metal deposition module.

42. (Previously Presented) An apparatus comprising:
a. a front transfer module comprising one or more supercritical modules configured to treat a substrate with a supercritical solution;
b. a back transfer module coupled to the front transfer module, the back transfer module comprising one or more deposition modules configured to deposit a layer of material onto the treated substrate; and
c. means for transferring the substrate between the front transfer module and the back transfer module without exposing the substrate to the environment.

43. (Previously Presented) The apparatus of claim 42, wherein the means for transferring the substrate between the first transfer module and the second transfer module comprises one or more transfer robots.

44. (Previously Presented) The apparatus of claim 42, further comprising a valve for isolating the substrate within the one of the front transfer module and the back transfer module.

45. (Previously Presented) The apparatus of claim 42, further comprising a loader module for introducing the substrate.

46. (Previously Presented) The apparatus of claim 45, wherein the loader module is coupled to the front transfer module.